



# Restoration Efforts in Texas

## Gulf Regional Coastal Management & NERR Workshop

Lacombe, LA  
February 26, 2014



# Overview

- Restoration work conducted through various grants and partnerships
  - CMP 306/306A, 309, CEPRA, CIAP funding
- Needs assessment in our long-term planning initiative (CMSP) used as a tool to inform and enhance planning under the RESTORE Act
- Priority projects from our needs assessment align with those selected for NFWF funding
- Using our long-term planning initiative to streamline grant funding to address restoration
- Develop a spatial decision-support tool as part of our long-term planning initiative to aid in permitting



# CMP FY13 Projects



Waterfront  
Revitalization  
& Ecotourism  
Development,  
4%



Coastal Water  
Quality &  
Quantity  
Protection,  
14%



Administration  
, 10%

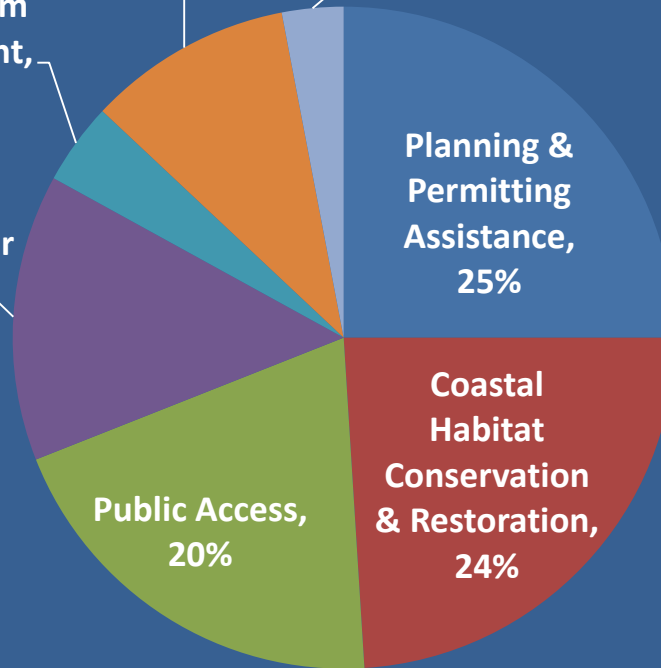
Coastal  
Natural  
Hazards  
Response, 3%



Planning &  
Permitting  
Assistance,  
25%

Coastal  
Habitat  
Conservation  
& Restoration,  
24%

Public Access,  
20%





# Current Restoration Projects



# Nueces Bay Causeway Marsh Restoration

Before



After



# South Padre Island Dune Restoration



Before



After



# Shell Bank: An Oyster Shell Reclamation, Storage, and Recycling Program for Oyster Reef



IT'S HABITAT FORMING  
[WWW.OYSTERRECYCLING.ORG](http://WWW.OYSTERRECYCLING.ORG)



# West Galveston Bay Marsh Restoration



# Baseline Needs Assessment of the Texas Coast

- To serve as a baseline for developing a long-term planning tool
- Aid in focusing resources to address priority regional concerns
- Identified current issues of concern and potential solutions (projects) in the 4 Texas coastal regions
- A Technical Advisory Committee (TAC) of coastal experts evaluated 1) the issues of Concern and 2) potential solutions for their area.



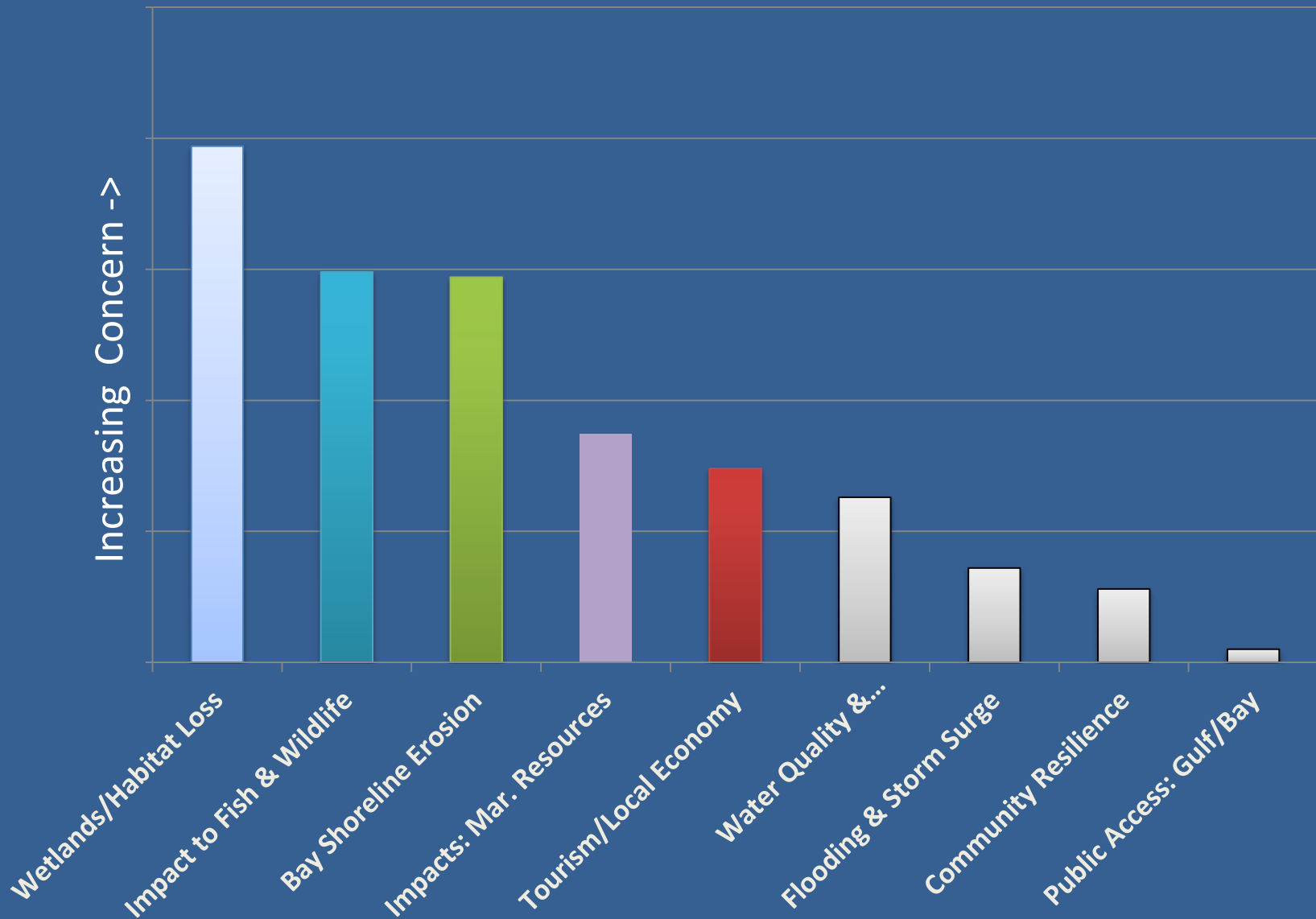
# Evaluation of Regional Issues of Concern

## Issues of Concern for the Surrounding Area of this Project:

Please fill in the issue boxes below with the corresponding level of concern associated with this area:

	0 – not at all concerned	1 – slightly concerned	2- moderately concerned	3- very concerned	4- extremely concerned
a. Wetlands & Habitat Loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Gulf Beach Erosion & Dune Degradation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Bay Shoreline Erosion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Flooding & Storm Surge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Water Quality & Quantity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Public Access: Gulf & Bay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Impacts to Fish & Wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Impacts to Marine Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Navigation: Commercial & Recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Marine Debris	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Public Health & Safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Land Subsidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Lack of Info & Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Community Resilience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Tourism and Local Economy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Region 3 Issues of Concern Results



# Coastwide Issues of Concern



Wetlands &  
Habitat Loss



Impacts to Fish &  
Wildlife



Gulf Beach/Dune  
Erosion



Water Quality &  
Quantity



Tourism & Local  
Economy



Bay Shoreline  
Erosion



Flooding & Storm  
Surge



Impacts to Marine  
Resources

# Example Proposed Project for Evaluation

## Region 3

**Area of Interest:** Corpus Christi Bay – Indian Point Peninsula ( Project #: R3-12)

**Potential Projects:** Shoreline Restoration and Protection; Marsh Protection; Habitat Protection

### General Information:

On-going erosion due to waves, tidal currents, and storms undermine the stability surrounding the park's public infrastructure and the sandy barrier that protects the wetlands. Erosion has resulted in the loss of 340 acres of salt marsh.

The area being targeted for shoreline protection extends approximately 5,200 ft northeast from the southern tip of Indian Point Peninsula (at the causeway), a straight-line distance of approximately 4,000 ft. Project would provide 2,550 ft of shoreline enhancement and 4,300 ft of breakwater to protect shoreline and 70 acres of marsh. This project would help protect wetlands, seagrass, and other related aquatic and coastal habitat at Indian Point from erosion associated with shoreline retreat. The project would also provide an increased level of protection to public infrastructure at Indian Point Park including a roadway, parking lot, and pier entrance. Benefits to salt marsh restoration and ecotourism. Conceptual and level design, approximate construction costs were developed to assist with project planning and budgeting. (See CBBEP feasibility study (2012)).



Region 3



# Evaluation of the Project's Ability to Address Issues of Concern

## Benefits:

Please fill in the boxes below with the corresponding level of benefits this area will be achieved by this project:

	0 – no benefit	1 – slight benefit	2- medium benefit	3- high benefit	4- essential
a. Wetland/Habitat Conservation & Restoration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Erosion Control/ Reduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Dune Restoration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Flood Control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Water Quality Improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Enhanced Public Access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Reduced Impacts to Fish & Wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Marine Resources Enhancement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Navigation Enhancement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Reduction of Marine Debris	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Health & Safety Improvements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Reduced Land Subsidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Management of Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
n. Collection of Essential Data/Info	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
o. Enhanced Coastal Community Resilience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
p. Tourism & Economic Growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
q. Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# Project Benefits Evaluation Questions

## Evaluation:

1. What is the feasibility of actually executing the appropriate project(s) for this area?

☐ 1- not at all likely   ☐ 2- slightly likely   ☐ 3- moderately likely   ☐ 4- very likely   ☐ 5- extremely likely

2. What is the likelihood of the completed project significantly reducing the identified issues of concern?

☐ 1- not at all likely   ☐ 2- slightly likely   ☐ 3- moderately likely   ☐ 4- very likely   ☐ 5- extremely likely

3. How do the project benefits align with the issues of concern for the area?

☐ 1- Do not align   ☐ 2- slightly align   ☐ 3- moderately align   ☐ 4- mostly align   ☐ 5- completely align

4. If the project does not occur, what is the expected level of economic loss?

☐ 1- extremely low   ☐ 2- somewhat low   ☐ 3- moderate   ☐ 4- somewhat high   ☐ 5- extremely high

5. If the project does not occur, what is the expected level of social-value loss?

☐ 1- extremely low   ☐ 2- somewhat low   ☐ 3- moderate   ☐ 4- somewhat high   ☐ 5- extremely high

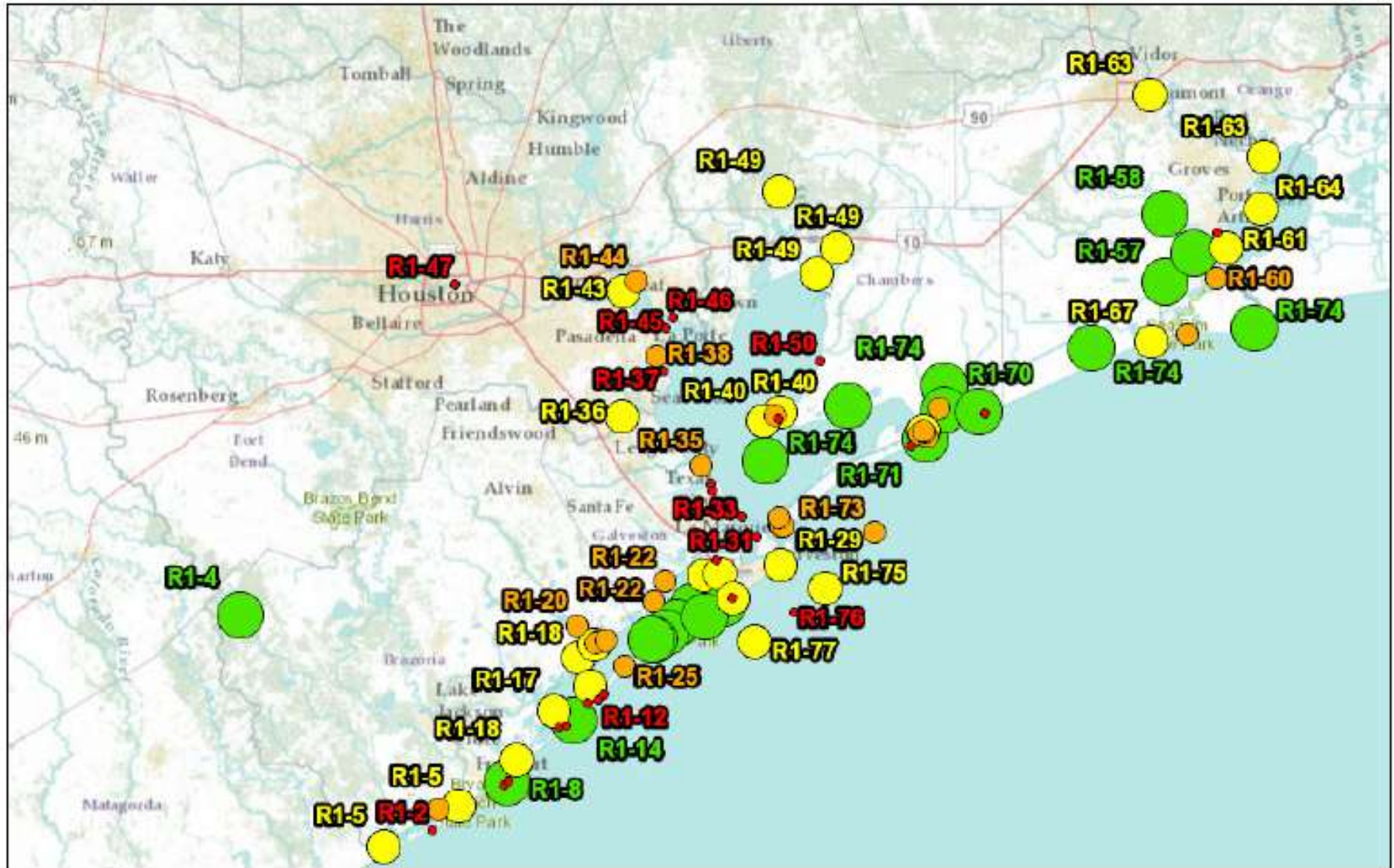
6. If the project does not occur, what is the expected level of ecologic loss?

☐ 1- extremely low   ☐ 2- somewhat low   ☐ 3- moderate   ☐ 4- somewhat high   ☐ 5- extremely high



## Results for Region 1 Project Evaluation Questions

## GLO CMSP Region 1 TAC Summary Project Scores (Preliminary)



# Restoration Planning & Implementation



# RESTORE Act: Developing a Texas Plan

- A Plan for Texas is being developed by the TX Commission on Environmental Quality
- Website should be operational soon
- Plan will encompass:
  - 5 GCERTF goals
    - Restore & Conserve Habitat: Stopping the Loss of Critical Wetlands, Sand Barriers and Beaches
  - USFWS Vision for a Healthy Gulf of Mexico Watershed
    - Restore and conserve habitat;
      - Restore wetland and aquatic ecosystems;
      - Protect and restore coastal strand, barrier island and estuarine island habitats;
        - Laguna Madre and Rio Grande River Valley;
        - Coastal Bend;
        - Austin's Woods and Prairies;
        - Chenier Plain;

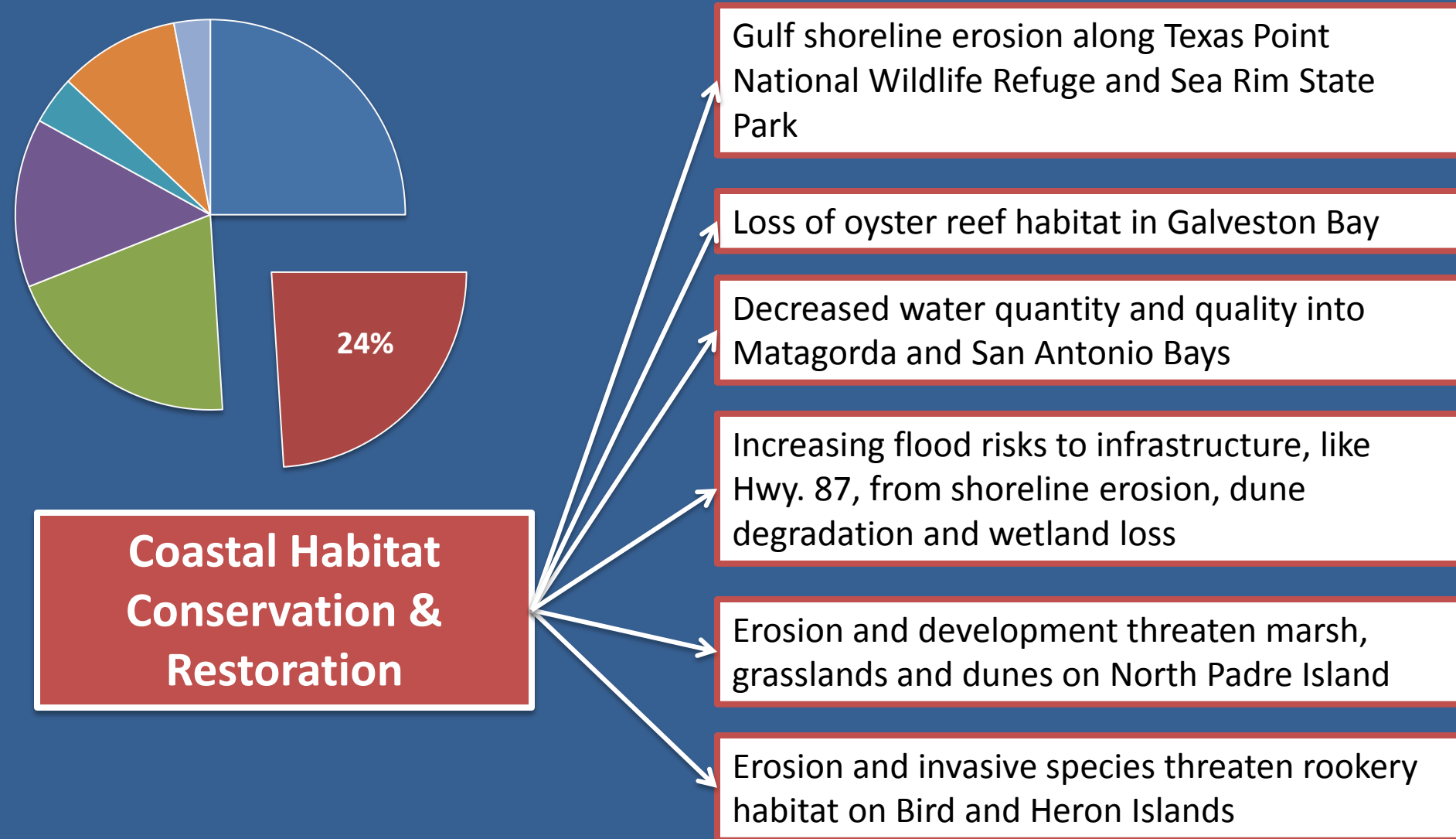


# NFWF Projects

- Galveston Island State park Marsh Restoration & Protection
- West Galveston Bay Water Quality Initiative Land Conservation
- Oyster Reef Restoration in East Bay of the Galveston Bay Ecosystem
- Gulf Coast Migratory Waterfowl Enhancement Project
- Sea Rim State Park Coastal Dune Restoration



# Streamline Grant Funding to Address Priority Issues of Concern



# CMSP Permitting Decision-Support Tool Development



# In Summary:

- Currently TX has no restoration “strategy” but restoration projects are implemented through grants
  - CMP 306/306A, 309, CEPRA, CIAP
- Areas of concern identified through our long-term planning initiative (CMSP) are being incorporated into the RESTORE process for restoration projects
- Specific priority project from our long-term planning process have been selected for NFWF funding
- Findings from our long-term planning initiative will be implemented through our CMP to streamline grant funding to address identified regional issues of concern
- Final product of our long-term planning initiative will be a spatial decision-support tool to aid in permitting





# Questions?



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